Well Performance and Completion Optimization: Striving to Optimize Returns in the Eagle Ford Shale

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Abstract

On the heels of data collection, integration and analysis completed to recommend a field development plan, Pioneer is continually analyzing the Eagle Ford downspacing and staggering program. The ongoing data collection and analysis is vital to understanding how the reservoir is reacting to changes in well spacing. The same data tool kit enables better understanding of the effectiveness of vertical well spacing and separation through staggering. The base-line of data from unit primary wells and offset 500 ft spaced wells provides a comparison tool to the new downspaced well pads. The downspacing and staggering program has been successful to date, but not without surprises along the way and challenges in future development. During this same timeframe, the changes in the global oil price environment have prompted increased focus on cost reduction. The resulting shift in completion optimization goals impacts the development program. Pioneer's completion optimization work flow has proven to be successful in the past and with current focus areas for reducing costs, new techniques are being developed and production performance is used to evaluate results. While the industry is concentrating capital towards the highest return areas of their assets, these completion techniques result is both cost reduction and enhanced recovery, thus impacting future of the field development program.